

## Annual Report 2002



# ANTICIPATING

*and exceeding your expectations*



GREATER CINCINNATI  
**WATER WORKS**

*A service of the City of Cincinnati*



David E. Rager, Director

## **Senior Management**

William Knecht, Business Services Division

Connie Roesch, Commercial Services Division

Frederick G. Merz, P.E., Distribution Division

Paul E. Tomes, P.E., Engineering Division

Albin J. Brune, P.E., Supply Division

Jack DeMarco, Water Quality and Treatment Division

## **City Council Members**

Charlie Luken, Mayor

Alicia Reece, Vice Mayor

Paul M. Booth\*

Y. Laketa Cole\*

Minette Cooper

John Cranley

David Crowley

Pat DeWine

Chris Monzel

David Pepper

James R. Tarbell

\*During 2002, Y. Laketa Cole replaced Paul M. Booth.

## **City Manager**

Valerie A. Lemmie

*City of Cincinnati is an Equal  
Opportunity/Affirmative Action Employer*





## Table of Contents

Excellence In Customer Service	4
People You Can Depend On	5
Clean & Safe Drinking Water	6
Water Quality and Supply	7
Sharing, Reaching Out	8
Serving, Caring, Teaching	9
The Future is in Our Hands	10
The Road To Customer Satisfaction	11
Service Area Map	12
General Operational Data	14
Microbiological Data	15
Water Quality Data	16
Water Quality Comparison	18
Financial Profile	20
Notes to Financial Statements	23





## **In Customer Service**

Good customer service doesn't begin or end at our front office. At your Greater Cincinnati Water Works (GCWW), customer service is a recognized priority with each and every employee — from the field to the office, all are dedicated to providing customers the best quality of water at the lowest possible price — and with you the customer in mind. After all, we are customers too.

2002 started with the implementation of our new Strategic Business Plan. The Strategic Business Plan gives all our employees realistic goals we believe will result in better customer relations and enhanced operations. To continue to provide the best service possible, we update our plan every five years.

Customer service systems like Call Center allows customers to pay water bills by phone. Our new work order system helps us to keep water flowing to customers by expediting record keeping for preventive maintenance. Updated this year, these systems provide efficiencies that enhance customer service.

This report illustrates the ongoing care that employees of the Greater Cincinnati Water Works take to maintain a plentiful supply of the quality of water that most people now take for granted. While GCWW has focused on new technologies and expanded water services, none of these advances would be possible were it not for a dedicated team behind every project, always keeping the customer's needs in mind.

We have been nationally recognized for our planning efforts to meet your future needs. We develop detailed plans based on monitoring and studying our infrastructure and population trends. We are always mindful of the unexpected. We are already planning and designing for additional water supply.

*The Greater Cincinnati Water Works is committed to maintaining a proactive approach in its research and systems development. This aids in providing high quality water at a very affordable price.*

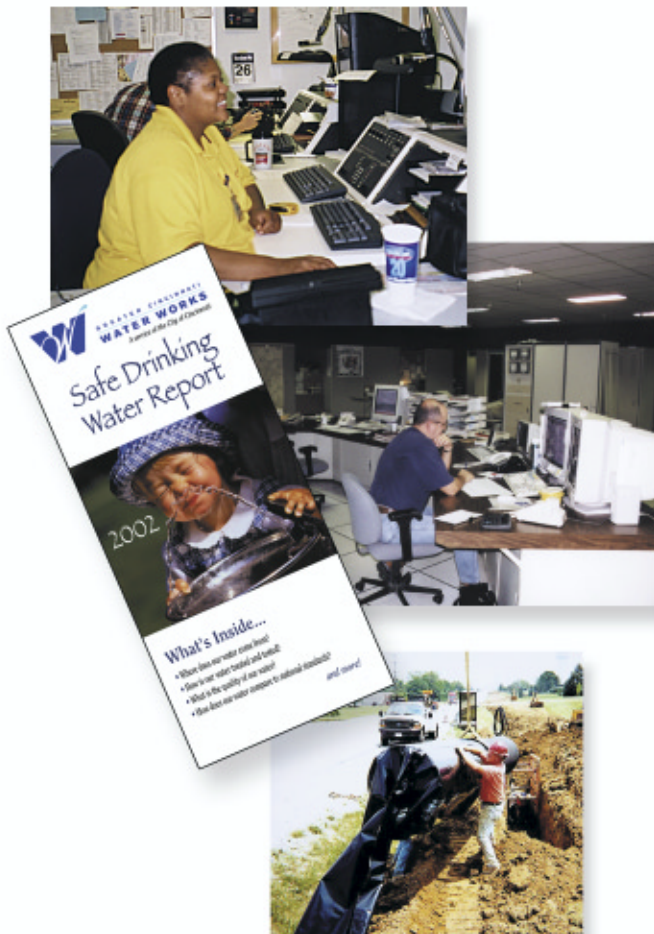
## People You Can Depend On

Our customers have told us that they feel better about their drinking water when they understand what we do to keep their water safe. We have always operated our facilities in a secure manner. Since September, 2001, we have instituted a heightened state of alert at our facilities and have taken additional measures to protect your water.

This year, under an American Water Works Association Research Foundation project, we worked to develop software to help us discover any relationships between water quality complaints and our maintenance or operational activities. We can then provide consistent quality by identifying potential concerns which may follow certain maintenance activities like fire hydrant servicing.

Our Safe Drinking Water Report outlines for customers each year the care taken by GCWW professionals to ensure a continued, safe supply of quality water from each of our various water sources: the Ohio River, the Great Miami Buried Valley Aquifer and the Shaker Creek Aquifer.

Our groundwater sources require special attention. The Hamilton to New Baltimore Ground Water Consortium, a coalition consisting of GCWW, along with other water suppliers and industrial users, goes to great lengths to monitor and protect the Great Miami Buried Valley Aquifer. This year, ground water monitoring was expanded from 18 to 24 wells. These wells serve as “early-warning” monitoring points to detect contamination before it reaches the wells. The Consortium recently began cooperative efforts with both the Miami Conservancy District and the U.S. Geological Survey (USGS) to collect data which will eventually be used to further protect our ground water supply.



*In 2002, we served approximately 88% of the GCWW service area population from our Treatment Plant on the Ohio River.*





## **Drinking Water for Ourselves and Neighbors, Near and Far**

In September of this year, a group of Water Works representatives set out on a ten-day adventure to Ukraine. The goal of this visit was to provide technical support and foster long-term dialogue between senior staff in the City of Cincinnati and the City of Kharkiv.

Donations from our employees to Water For People (WFP) assisted with the installation of a water system for a hurricane displaced community in Honduras. WFP is a non-profit organization dedicated to supporting safe drinking water for developing countries. Two GCWW representatives traveled to Honduras to assist with a WFP needs assessment for the project.

GCWW hosted staff from the San Diego Water and Sewer Departments. Our visitors studied GCWW technical systems and explored how we have successfully integrated these technologies with business process to provide excellent customer service.

Closer to home, GCWW continued to assist our neighbors by expanding our service area in 2002. The Boone County and Florence in Kentucky and Mason, Ohio, water districts faced critical decisions about future growth and expanded needs for water. Enter Greater Cincinnati Water Works.

On March 1st, 2002, we assumed operation of the City of Mason water system. The transition was a major success for both GCWW and the City of Mason. The two agencies are a model for cooperation, resulting in better service and lower operational costs.

During 2002, we prepared for the March 2003 start-up of supplying water to Boone County and the City of Florence. Following the installation of a 3,000 foot water supply line under the Ohio River, a new Kentucky pump station was constructed. This new facility boasts a pumping capacity of thirty-five million gallons of water per day. This growth benefits our existing customers by spreading operational costs over more customers. This keeps our rates among the lowest in the region.



## Water Quality and Supply

GCWW's strong research program addresses increasingly stringent regulatory requirements and concerns over the vulnerability of the Ohio River watershed. Research investigations of new treatment techniques include evaluation of the use of ultraviolet light (UV) for disinfection. This study examined cost-effectiveness of UV as well as potential integration of UV with existing GCWW treatment steps.

Professionals at our organics laboratory in the Ohio River Plant have been working with the Ohio River Valley Water Sanitation Commission (ORSANCO) to monitor spills occurring on the Ohio River. Currently, ORSANCO operates 15 monitoring stations along the Ohio River and its tributaries. These stations range from Pittsburgh, Pennsylvania to Paducah, Kentucky. As part of the network, we analyze a sample of Ohio River water every two hours for the presence of organic chemicals indicative of a spill.

As regulations change, we will continue to stay ahead of local, state and federal requirements for safe drinking water. Certification was obtained by our laboratories to analyze

for two newly regulated water quality substances, Haloacetic Acids and Total Organic Carbon.

Water main construction, at an all time high this year, included increasing service capacity in Hamilton County with the construction of a number of new water mains like the one along the Montgomery Road corridor.

In 2002, we continued to build a computer-based dynamic water quality model of our water distribution system. By incorporating the latest technology such as our Primavera tracking system, our engineers are able to evaluate vast amounts of data, assess the condition of our water distribution system and schedule water main replacements accordingly. This results in higher quality water and fewer unexpected interruptions in service for our customers.

*The Alliance For Chemical Safety presented the 2002 Risk Reduction Achievement Award to GCWW. This award was made in recognition of "Outstanding achievement in improving employee and public safety by reducing the risks of hazardous material used in Greater Cincinnati and Hamilton County."*





## Reaching Out:

An important part of building relationships with our customers is helping children understand what is involved in getting drinking water to their faucets. Our teachers' page on our website ([www.cincinnati-oh.gov/gcww](http://www.cincinnati-oh.gov/gcww)) features free Safe Drinking Water Reports for use in the classroom as well as workbooks for the children and a poster of the water cycle. The site also offers numerous ideas for the classroom.

Hamilton County Waterfest won the national Acts of Caring Award for 2002 from the National Association of Counties (NACO) in the environmental category. The award was given for the extensive involvement of agencies and volunteers at this educational event for 2,000 children at the Cincinnati Convention Center. GCWW presented "From the Source to the Tap" at this year's Waterfest, with students assisting employees from

each division in doing their jobs. This helped them understand all that goes into providing water to their communities. The annual event is sponsored by several agencies including GCWW, along with the Metropolitan Sewer District and, Hamilton County Soil and Water Conservation District and the Department of Environmental Services.

Many of our employees participated in the ever-popular Vehicle Day Programs at schools throughout the community. This program involves bringing heavy equipment such as a crew truck, valve operator van, dump truck and backhoe to the schools. Employees explain their job responsibilities and the training required to perform their jobs. In addition to providing facts and allowing the children to explore the equipment, employees encourage the children to stay in school.





## Serving, Caring, Teaching

Daughters and sons of employees were on hand this year to question GCWW professionals about their jobs, work processes, and equipment. At times fitted with safety vests and hard hats, children reviewed many aspects of the GCWW operations. From looking for buried items with a metal detector to paying a pretend water bill, these children learned a lot about what goes on behind the walls of Greater Cincinnati Water Works.

Among the highlights of these visits, children were able to see how the Granular Activated Carbon process filtered food coloring out of ordinary tap water. The children also walked through a 42 inch water main. The most frequently asked question from many of these guests, "When can we come back?"

### ***"This is the best booth in the place!"***

Water Works employees were out and about again this year at the Taste of Cincinnati, staffing the now famous "H2O To Go" Booth. GCWW volunteers set a new record this year by dispensing 54,000 cups of free, thirst-quenching water-about 3,000 gallons. This breaks the 1999 record by 2,000 cups of water.

This year, GCWW employees assisted with many local events, including: Jammin' on Main, Taste of Cincinnati, Public Employees Recognition Day, Vehicle Day, Ribfest, Ault Park 4th of July Celebration, Vine Street Celebration, Aids Walk-a-thon and Oktoberfest.

*This year GCWW employees contributed \$44,622 to the City's United Way Campaign and \$10,597 to its United Negro College Fund.*



## Is In Our Hands

Planning our own future goes hand-in-hand with technology and education. Our customers benefit from our voluntary collaboration with water districts and communities throughout the world. Water Works employees are routinely called upon for their insight and experience. We help spread new technology world-wide by participating in international workshops, like those in Canada and the Netherlands in 2002. Our research allows us to publish and present cutting-edge documents such as the "Effects of UV Irradiation on Organic Matter." This makes a bold statement about our concern for the health and well-being of our customers here at home.

To keep the water flowing freely for many years into the future, GCWW maintenance employees installed new chemical feed pumps and piping for sodium hexametaphosphate at the Miller Plant on the Ohio River.

GCWW pioneered the use of Granular Activated Carbon treatment for drinking water in 1992. We still have the largest facility of this type in the United States that reactivates

the carbon on-site. This is done in two giant 1800-degree furnaces. We reactivate much of the carbon in the summer months when energy costs are lower. In 2002 we studied our GAC reactivation to determine the most cost effective schedule. This research resulted in a savings of \$285,000 per year in carbon and energy costs.

In 2002, the Ohio Environmental Protection Agency approved our demonstration study which allowed us to increase our Miller Plant capacity from 175 to 220 million gallons per day (MGD). Compared to the cost of a new 45 MGD plant, this project could save approximately \$134 million. Research like this enables us to continue to provide the highest quality water at rates that are among the lowest in the region.

*In 2002, we had the pleasure of speaking to the newest Cincinnati fire recruit class about different pressure zones within our system. This type of training helps the fire department better understand the mechanics of proper operation of a fire hydrant. Ultimately, everything we do is for you, our customer.*

## **The Road to Customer Satisfaction**

We have searched for an easy way to read our customer's water meters particularly when they are indoors. Just a few years ago, we began using the TouchPad system utilizing a device mounted on the outside of the home or business. While convenient for the homeowner, it still requires a meter reader to approach the home and physically touch the pad with the handheld computer.

Finally, a solution was found. Over the year, the Commercial Services Division has taken major steps toward making automatic meter reading (AMR) a reality. This program will enable GCWW meter readers to simply drive down residential streets taking meter readings automatically from their vehicles. Between 2003 and 2007, each household will be fitted with a low-frequency radio

device which will transmit your meter reading to a computer in a Water Works vehicle. This program will not only result in more accurate meter readings, but also will end the need for individual house calls, features you have been waiting for.

Behind the scenes, we make every effort to improve the speed of customer service inquiries. Building on the introduction of a computerized work order/inventory management system in 2001, we began utilizing a new system based on asset maintenance planning and control. The system computerized the access to customer information in order to speed our response to service inquiries. Our goal is to perform quality work more efficiently and improve customer service.

### **Communication is Key**

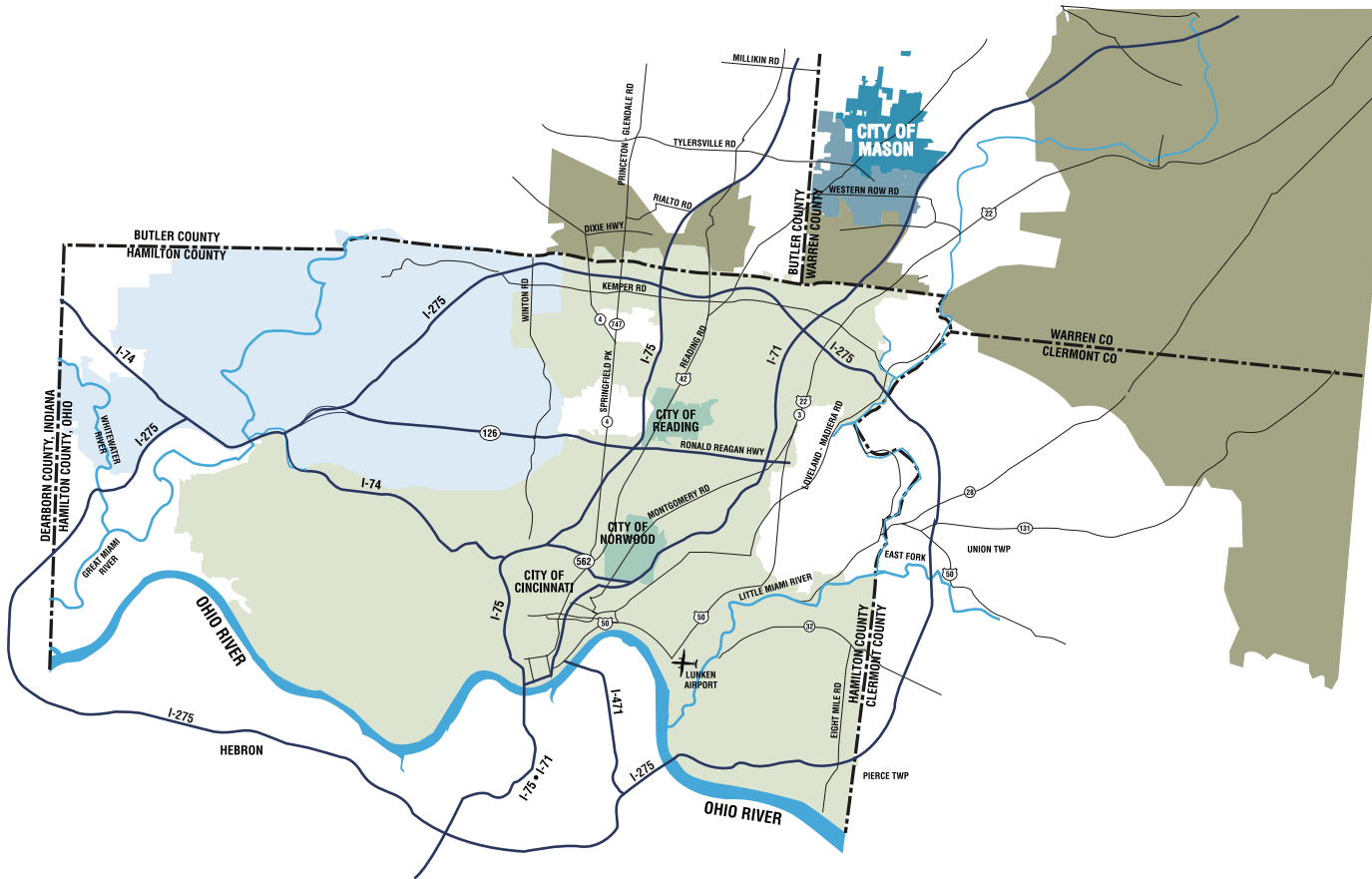
Whether in the front office, on the telephone or in the field, communication is the key to our relationship with you. We must keep our system up to date, plan for the future needs of our customers in our service area and be accessible to our customers when they need our help.

Our employee training program focuses on developing a work culture centered around our customers. Emphasis on developing a coaching and participative style of management that reflects our values translates into improved customer service and communications.

These investments to continuously improve customer service are reflected by measuring the success of our efforts: 93% of respondents felt that our employees were courteous in our 2002 customer survey.



# GCWW Service Area



## Neighborhoods We Serve:

### Ohio River Service Area

Amberley Village  
Anderson Township  
Avondale  
Blue Ash\*  
Bond Hill  
California  
Cherry Grove  
Cheviot\*  
Clifton  
Corryville  
Covedale  
Cumminsville  
Deer Park  
Delhi & Delhi Twp.  
Downtown  
East End  
Elmwood Place  
Evanston  
Evendale  
Fairfax  
Golf Manor  
Green Township\*  
Greenhills\*  
Hyde Park  
Kennedy Heights  
Kenwood  
Lincoln Heights  
Mack\*  
Madeira  
Madisonville  
Mariemont  
Mason\* (southern half)

Miami Heights\*  
Montgomery  
Mt. Airy\*  
Mt. Auburn  
Mt. Lookout  
Mt. Washington  
Newtown  
Northside  
Norwood  
Oakley  
Pleasant Ridge  
Price Hill  
Reading  
Roselawn  
St. Bernard  
Saylor Park  
Sharonville\*  
Silverton  
Springdale\*  
Sycamore Township\*  
Symmes Township  
Walnut Hills  
West End  
Western Hills\*  
Westwood\*  
Winton Place  
Woodlawn

### Great Miami Aquifer Service Area

Colerain Township  
College Hill\*  
Crosby Township  
Dent\*  
Forest Park\*  
Miamitown  
Monfort Heights\*  
Mt. Healthy\*  
New Burlington  
North College Hill  
Northgate  
Pleasant Run  
Springfield Township  
Venice Gardens  
White Oak\*  
Whitewater Township

### Shaker Creek Aquifer Service Area

Mason (northern half)

## Legend

- GCWW Retail Service Area served with water from the Ohio River.
- GCWW Retail Service Area served with water from the Great Miami Aquifer.
- GCWW Retail Service Area served with water from the Shaker Creek Aquifer.
- Mason Retail Service Area served by GCWW with water from Ohio River and Great Miami Aquifer.

GCWW sells water on a wholesale basis to municipalities, counties and a rural water association who distribute, meter and bill for the water. These include:

- Wholesale areas served by GCWW with water from the Ohio River
- Wholesale areas served by GCWW with water from Ohio River and Great Miami Aquifer. These wholesale customers may mix GCWW water with water from their own sources.
- Areas not served by GCWW.

\*Some communities may get water from both the Ohio River and Great Miami Aquifer. The border on the map is the dividing line under most typical operating conditions, although water from either plant may go miles beyond this border. The Mason Plant supplies water only from the Shaker Creek Aquifer.



General Operational Data 14

Microbiological Data 15

Water Quality Data Table 16

Raw & Finished Water 18

Financial Profile 20

Notes to Financial Statements 23

## GENERAL OPERATIONAL DATA



### Ohio River Service Area

The Richard Miller Treatment Plant treats "surface" water pumped from the Ohio River. The Miller Plant supplies drinking water to 88% of GCWW's customers, including most of the City of Cincinnati. The Miller Plant is located on the Ohio River.

### Great Miami Aquifer Service Area

The Charles M. Bolton Treatment Plant treats "ground" water from wells in the Great Miami Aquifer. An aquifer is a layer of sand and gravel under the earth's surface. Water fills the spaces between the rocks. The Bolton Plant supplies drinking water to 11% of GCWW's customers.

### Shaker Creek Aquifer Service Area

The Mason Treatment Plant treats "ground" water from the Shaker Creek Aquifer. The Mason Plant supplies drinking water to the northern half of the City of Mason. GCWW assumed operation of the Mason Water System in March, 2002.

### Miller Plant

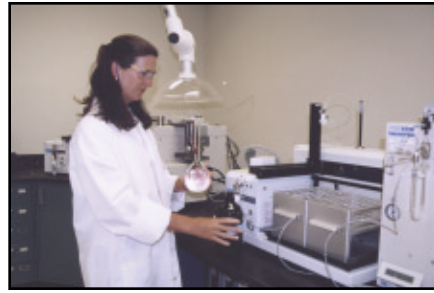
### Bolton Plant

### Mason Plant\*

<b>Raw Water Pumped</b>	<b>42,695,277,000</b> Gallons	<b>6,406,103,000</b> Gallons	<b>660,930,000</b> Gallons
<b>Finished Water Delivered for Consumption</b>	<b>42,971,514,000</b> Gallons	<b>6,102,867,000</b> Gallons	<b>604,770,000</b> Gallons
<b>Filtered Water Used in Washing Filters</b>	<b>665,062,000</b> Gallons	<b>77,702,000</b> Gallons	<b>52,877,000</b> Gallons
Percent Used - Average	1.5%	1.3%	8.5%
Percent Used - Maximum Month	(October) 2.5%	(June) 3.2%	
Percent Used - Minimum Month	(February) 0.6%	(February) 0.5%	
<b>Total Number of Filter Washes</b>	<b>3,946</b>	<b>458</b>	<b>1,213</b>
Maximum Month	(July) 522	(August) 77	(August) 213
Minimum Month	(February) 143	(February) 15	(December) 48
<b>Period of Filter Service, Average Hours</b>			
Maximum Month	(February) 91.0 Hours		72.0 Hours
Minimum Month	(October) 38.0 Hours		24.0 Hours
Average per Filter Run	56.0 Hours	92.0 Hours	
<b>Finished Water Delivered for Consumption</b>	<b>42,971,514,000</b> Gallons	<b>6,102,867,000</b> Gallons	<b>604,770,000</b> Gallons
Average Day	117,730,000 Gallons	16,720,184 Gallons	1,976,373 Gallons
Maximum - Gallons per Day	(August 3) 187,209,000 Gallons	(September 13) 29,521,000 Gallons	(August 10) 4,587,000 Gallons
Minimum - Gallons per Day	(January 19) 87,700,000 Gallons	(September 21) 13,915,000 Gallons	(May 1) 1,467,000 Gallons
Maximum Month	(July) 4,750,678,000 Gallons	(August) 652,712,000 Gallons	(July) 93,950,000 Gallons
Average Day/Maximum Month	153,278,000 Gallons	21,055,226 Gallons	3,030,645 Gallons
Minimum Month	(February) 2,869,522,000 Gallons	(February) 424,988,000 Gallons	(March) 39,230,000 Gallons
Average Day/Minimum Month	102,482,929 Gallons	15,178,143 Gallons	1,401,071 Gallons

\* Data covered period of time GCWW operated the Mason Plant from March, 2002 - December, 2002 (306 days).





## MICROBIOLOGICAL DATA

	Total Coliform Bacteria			Giardia Cysts per 100 Liters	Cryptosporidium Oocysts per 100 Liters
Finished Water	% Positive Samples	Maximum Monthly Percentage	Minimum Monthly Percentage		
Miller Finished Water	0%	0%	0%	none detected	none detected
Bolton Finished Water	0%	0%	0%	none detected	none detected
GCWW Distribution System	<MCL*	<MCL*	<MCL*	-	-
Mason Distribution System	<MCL*	<MCL*	<MCL*	-	-
Miller Raw Water - Detections	Coliform Bacteria per 100 Milliliters				
% Positive Samples	100%			8.33%	0%
Average of Detections	1,300			12	-
Maximum Monthly Average	6,800			9	-
Maximum Day	13,000			18	-
Minimum Monthly Average	70			none detected	-
Minimum Day	4			none detected	-
Bolton Raw Water - Detections					
% Positive Samples	0%			0%	0%
Average of Detections	-			-	-
Maximum Monthly Average	-			-	-
Maximum Day	-			-	-
Minimum Monthly Average	-			-	-
Minimum Day	-			-	-
A total of 3,602 samples were analyzed				A total of 40 samples were analyzed	A total of 40 samples were analyzed

\*OEPA MCL for total coliforms requires that no more than 5.0 percent of the total number of samples during a month are total coliform-positive.

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

# Water Quality Data Table

## Regulated Contaminants

Substances subject to a Maximum Contaminant Level (MCL), Action Level (AL) or Treatment Technique (TT)\*. These standards protect drinking water by limiting the amount of certain substances that can adversely affect public health and are known or anticipated to occur in public water systems.

Substance (Unit)	Maximum Allowed (MCL*)	MCLG*	Miller Water		Bolton Water	
			Highest Compliance Level Detected	Range of Detections	Highest Compliance Level Detected	Range of Detections
Fluoride (ppm)	4	4	1.09	0.91 - 1.09	1.09	0.88 - 1.09
Nitrate (ppm)	10	10	1.96	0.73 - 1.96	2.84	1.13 - 2.84
Total Trihalomethanes (ppb)	80	na	32.9	20.2 - 46.3	35.4	24.2 - 44.7
Haloacetic Acids (ppb)	60	na	8.73	5.76 - 12.4	8.57 <sup>d</sup>	7.76 - 9.54 <sup>d</sup>
Gross Beta (pCi/L)	50	0	nd	nd	4.8 <sup>a</sup>	na
Turbidity (NTU)	TT1 < 1 NTU Max <i>and</i> TT2 < 0.3 NTU 95% of the time	na na	0.11 100% < 0.3 NTU	0.04 - 0.11	0.05 <sup>d</sup> 100% < 0.3 NTU	0.03 - 0.05 <sup>d</sup>
Lead <sup>c</sup> (ppb)	AL = 15	0	90th percentile 5.0	nd-22.6 (1 out of 112 samples tested were > the AL)	90th percentile 5.0	nd-22.6 (1 out of 112 samples tested were > the AL)
Copper <sup>c</sup> (ppm)	AL = 1.3	1.3	90th percentile 0.0382	nd-0.128 (0 out of 112 samples tested were > the AL)	90th percentile 0.0382	nd-0.128 (0 out of 112 samples tested were > the AL)
Total Organic Carbon (ppm)	TT <sup>b</sup>	na	2.64	1.50 - 3.49	na	na
Total Chlorine <sup>c</sup> (ppm)	MRDL = 4	MRDLG = 4	0.93	0.91 - 0.95	0.93	0.91 - 0.95

## Unregulated Contaminants

Substances for which EPA requires monitoring to determine where certain substances occur and whether it needs to regulate those substances.

Substance (Unit)	MCLG*	Miller Water		Bolton Water		Mason Water		Typical Source
		Average Level Detected	Range of Detections	Average Level Detected	Range of Detections	Average Level Detected	Range of Detections	
Chloroform (ppb)	na	1.3	na	2.4 <sup>a</sup>	na	2.3 <sup>a</sup>	1.5 - 3.2	Substances in this portion of the table are byproducts of drinking water disinfection. Disinfection of drinking water is a major public health advance of the 20th century. One hundred years ago, typhoid and cholera epidemics were common in American cities.
Bromodichloromethane (ppb)	0	4.7	na	5.1 <sup>a</sup>	na	3.9 <sup>a</sup>	2.5 - 6.8	
Dibromochloromethane (ppb)	60	6.7	na	8.1 <sup>a</sup>	na	3.3 <sup>a</sup>	nd - 8.0	
Bromoform (ppb)	0	2.8	na	7.2 <sup>a</sup>	na	1.5 <sup>a</sup>	1.0 - 3.1	
Haloacetic Acids (HAA6) (ppb)	nr	10.6 <sup>a</sup>	3.58 - 12.60 <sup>a</sup>	11.29 <sup>a</sup>	4.83 - 16.60 <sup>a</sup>			
1,1 - Dichloropropanone (ppb)	nr	nd <sup>a</sup>	nd - 1.98 <sup>a</sup>	nd <sup>a</sup>	nd - 2.04 <sup>a</sup>			
1,1,1 - Trichloropropanone (ppb)	nr	nd <sup>a</sup>	nd - 1.70 <sup>a</sup>	nd <sup>a</sup>	nd - 1.69 <sup>a</sup>			
Trichloroacetoneitrile (ppb)	nr	nd <sup>a</sup>	nd - 1.28 <sup>a</sup>	nd <sup>a</sup>	nd - 1.25 <sup>a</sup>			
Dichloroacetoneitrile (ppb)	nr	0.62 <sup>a</sup>	nd - 2.09 <sup>a</sup>	1.62 <sup>a</sup>	nd - 2.12 <sup>a</sup>			
Bromochloroacetoneitrile (ppb)	nr	0.71 <sup>a</sup>	nd - 2.40 <sup>a</sup>	1.35 <sup>a</sup>	0.51 - 2.55 <sup>a</sup>			
Dibromoacetoneitrile (ppb)	nr	1.41 <sup>a</sup>	nd - 3.70 <sup>a</sup>	3.84 <sup>a</sup>	1.80 - 4.83 <sup>a</sup>			
Chloral Hydrate (ppb)	nr	0.58 <sup>a</sup>	nd - 1.97 <sup>a</sup>	nd <sup>a</sup>	nd - 0.69 <sup>a</sup>			
Total Organic Halide (ppb)	nr	nd <sup>a</sup>	nd <sup>a</sup>	nd <sup>a</sup>	nd - 73.1 <sup>a</sup>			
Free Chlorine Residual (ppm)	nr	0.89 <sup>a</sup>	0.60 - 1.27 <sup>a</sup>	0.92 <sup>a</sup>	0.55 - 1.20 <sup>a</sup>			Disinfectant
Sulfate (ppm)	nr	74	50-105	66	59-78	139	129 - 148	Erosion of natural deposits

The tables (above) show the substances reported in the GCWW 2002 Safe Drinking Water Report, which was prepared to meet the EPA's National Primary Drinking Water Regulation for Consumer Confidence Reports.

All of the regulated substances were well within the limits the EPA has set to ensure the safety of tap water. For more information on the potential health effects of various substances, call the EPA's Safe Drinking Water Hotline at 1(800) 426-4791. Check the EPA's website at [www.epa.gov/safewater/hfacts.html](http://www.epa.gov/safewater/hfacts.html) for more detailed descriptions of contaminants.

Customers may request additional printed copies of the report or view the entire GCWW Safe Drinking Water Report on the internet at [www.cincinnati-oh.gov/gcww](http://www.cincinnati-oh.gov/gcww).

Mason Water		
Highest Compliance Level Detected	Range of Detections	Typical Source of Contamination
1.38	0.60 - 1.38	Additive which promotes strong teeth. May come from erosion of natural deposits.
0.34	na	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.
10.3	8.67 - 12.6	Byproduct of drinking water disinfection, measured in the distribution system.
		Byproduct of drinking water disinfection, measured in the distribution system.
		Decay of natural and man-made deposits. (EPA considers 50 pCi/L to be the level of concern.)
		Soil runoff
90th percentile nd	nd-7 <sup>a</sup> (0 out of 30 samples tested were > the AL)	May come from erosion of natural deposits. There is no detectable lead in our water as it leaves the treatment plants. However, corrosion of household plumbing is a source of lead and copper contamination. GCWW tests water samples collected at customer taps, as required by the Safe Drinking Water Act to ensure safe water.
90th percentile 0.23	nd-0.41 <sup>a</sup> (0 out of 30 samples tested were > the AL)	
		Naturally present in the environment.
		Water additive used to control microbes.

<sup>a</sup>Sample analysis was not required in 2002. Shown is most recent data collected.

<sup>b</sup>The value reported under "Highest Compliance Level Detected" for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of >1 indicates that the water system is in compliance. A value of <1 indicates a violation.

<sup>c</sup>Miller and Bolton were considered as one system for regulatory purposes by Ohio EPA during 2002. Data listed for each system represents the combined system.

<sup>d</sup>Monitoring not required for ground water. Data provided as additional information.

of Contamination
Disinfectants can react with naturally occurring materials in water to form substances which may pose health risks.
These substances are called "disinfection byproducts (DBPs)". The disinfection byproducts found in Cincinnati water for which EPA requires monitoring are listed here.

## \*Definitions

**Maximum Contaminant Level Goal or MCLG:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level or MCL:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Action Level or AL:** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.

**Maximum Residual Disinfection Level or MRDL:** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfection Level Goal or MRDLG:** The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Radon:** GCWW monitored for radon in Bolton finished water during 2001. One sample was collected and the radon level was 200 pCi/L. This was less than the USEPA proposed MCL of 300 pCi/L for radon. Radon is a radioactive gas that occurs naturally in some ground water. It may pose a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Major sources of radon gas are soil and cigarettes. Inhalation of radon gas has been linked to lung cancer, however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on how to have your home tested, call 1-800-SOS-RADON.

Some contaminants in our Finished Water were below the detection limit. See page 19 of this report for a list of those contaminants.

## Abbreviations

**ppb:** parts per billion or micrograms per liter.

**ppm:** parts per million or milligrams per liter.

**na:** not applicable.

**NTU:** Nephelometric Turbidity Unit, used to measure clarity in drinking water.

**nd:** not detectable at testing limits

**nr:** not regulated

**pCi/L:** picoCuries per liter, a measure of radioactivity in water.



## RAW & FINISHED WATER

### Comparisons of Selected Parameters

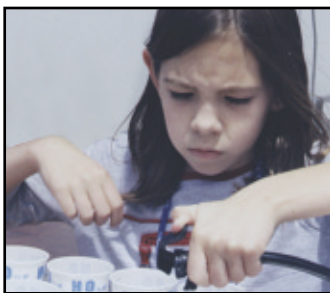
#### RAW WATER

	Miller Plant		Bolton Plant		Mason Plant	
	Average	Range	Average	Range	Average	Range
Turbidity (NTU)	51	1.0-611	0.04	0.03-0.09	1.5	0.01-55
Total Alkalinity (as CaCO <sub>3</sub> )	63	45-78	225	210-236	334	310-346
Total Hardness (as CaCO <sub>3</sub> )	127	85-166	311	294-328	528	480-560
Calcium (as Ca)	36	21-42	84	48-94	136	130-147
Magnesium (as Mg)	10	2.9-20	24	19-45	46	37-47
pH (Units)	7.8	7.5-9.0	7.5	7.1-7.8	7.0	6.7-7.6
Chloride	29	20-43	61	46-76	41	26-70
Fluoride	0.18	0.1-0.32	0.32	0.27-0.41	0.18	0.16-0.21
Sulfate	72	49-111	69	50-94	-	-
Nitrate (as NO <sub>3</sub> -N)	1.26	0.85-2.12	1.86	0.89-2.65	<0.05	<0.05-<0.05
Iron (as total Fe)	2.74	2.74-2.74	<0.05	<0.05-<0.05	2.9	1.3-4.0
Arsenic	-	-	-	-	0.0088	0.0075-0.0099
Manganese (as total Mn)	0.18	0.18-0.18	0.33	0.33-0.33	0.16	0.11-0.53
Sodium	24	21-27	31	31-31	-	-
Total Solids	304	230-423	-	-	-	-
Total Dissolved Solids	256	169-370	424	424-424	656	596-748
Total Organic Carbon	2.8	2.1-3.9	1.0	0.8-1.2	0.66	0.54-0.74
Phosphate (as PO <sub>4</sub> -P)	-	-	-	-	-	-
Chlorine Residual, Free	-	-	-	-	-	-
Chlorine Residual, Total	-	-	-	-	-	-

In mg/l Except Where Noted



*GCWW was awarded a tailored collaborative grant in 2002. The award was based on the study entitled, "Development of Distribution System Optimizing Plans."*



## FINISHED WATER

	Miller Plant		Bolton Plant		Mason Plant	
	Average	Range	Average	Range	Average	Range
Turbidity (NTU)	0.08	0.04-0.11	0.03	0.03-0.05	0.33	0.05-3.80
Total Alkalinity (as CaCO <sub>3</sub> )	67	50-89	75	63-88	334	318-358
Total Hardness (as CaCO <sub>3</sub> )	131	94-163	160	141-174	517	500-572
Calcium (as Ca)	37	28-60	30	23-54	138	132-146
Magnesium (as Mg)	8.6	2.4-15	21	7-25	42	41-51
pH (Units)	8.7	8.2-9.0	9.2	8.9-9.5	7.2	7.0-7.4
Chloride	28	21-38	63	52-78	-	-
Fluoride	0.97	0.8-1.09	0.97	0.88-1.09	1.00	0.60-1.30
Sulfate	74	50-105	66	59-78	-	-
Nitrate (as NO <sub>3</sub> -N)	1.22	0.85-1.96	2.02	1.13-2.84	0.34	0.34-0.34
Iron (as total Fe)	<0.05	<0.05-<0.05	<0.05	<0.05-<0.05	0.127	0.008-1.299
Arsenic	<0.005	<0.005-<0.005	<0.005	<0.005-<0.005	<0.001	<0.001-<0.001
Manganese (as total Mn)	<0.01	<0.01-<0.01	<0.01	<0.01-<0.01	0.027	0.003-0.154
Sodium	28	22-31	31	31-31	11	11-11
Total Solids	239	191-280	-	-	-	-
Total Dissolved Solids	239	191-280	280	280-280	619	582-652
Total Organic Carbon	0.7	0.2-1.3	0.9	0.7-1.1	-	-
Phosphate (as PO <sub>4</sub> -P)	-	-	0.07	<0.05-0.15	-	-
Chlorine Residual, Free	1.04	0.88-1.24	1.07	0.80-1.34	0.9	0.51-1.64
Chlorine Residual, Total	1.09	0.91-1.28	1.14	0.95-1.39	1.04	0.60-1.82

In mg/l Except Where Noted

## THE FOLLOWING WERE BELOW THE DETECTION LIMIT IN OUR FINISHED WATER:<sup>1</sup>

**Inorganics:** Antimony, Arsenic, Asbestos, Barium, Beryllium, Cadmium, Chromium, Cyanide, Mercury, Nickel, Nitrite, Selenium, Thallium, Aluminum, Iron, Manganese, Silver, Zinc

**Pesticides and Other Synthetic Organic Compounds:** Alachlor, Atrazine, Benzo[a]pyrene, Carbofuran, Chlordane(total), Dalapon, Dibromochloropropane, Di(2-ethylhexyl) adipate, Di(2-ethylhexyl) phthalate, 2,4-D, Dinoseb, Diquat, Endothall, Endrin, Ethylene dibromide, Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Oxamyl (Vydate), Pentachlorophenol, Picloram, PCB's (total), Simazine, 2,3,7,8-TCDD (Dioxin), Toxaphene, 2,4,5-TP (Silvex), Aldicarb, Aldrin, Butachlor, Bromacil, Carbaryl, Dicamba, Dieldrin, 3-Hydroxycarbofuran, Methomyl, Metolachlor, Metribuzin, Propachlor

**Volatile Organic Chemicals:** Trichloroethene, Benzene, Carbon tetrachloride, 1,2-Dichloroethane, Vinyl Chloride, 1,1-Dichloroethene, 1,1,1-Trichloroethane, 1,4-Dichlorobenzene, cis-1,2-Dichloroethene, Tetrachloroethene, 1,2-Dichlorobenzene, trans-1,2-Dichloroethene, Chlorobenzene, Styrene, Toluene, Xylenes (total), 1,2-Dichloropropane, 1,1,2-Trichloroethane, Dichloromethane, Ethylbenzene, 1,2,4-Trichlorobenzene, 2,2-Dichloropropane, Dichlorodifluoromethane, Dibromomethane, 1,3-Dichloropropane, Chloromethane, Bromomethane, Bromochloromethane, 1,2,3-Trichloropropane, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1-Dichloropropene, Chloroethane, 1,3-Dichloropropene, Hexachlorobutadiene, Naphthalene, tert-Butylbenzene, 4-Isopropyltoluene, Trichlorofluoromethane, sec-Butylbenzene, 1,1-Dichloroethane, Bromobenzene, Isopropylbenzene, n-Propylbenzene, 2-Chlorotoluene, 4-Chlorotoluene, 1,3-Dichlorobenzene, 1,2,3-Trichlorobenzene, 1,2,4-Trimethylbenzene, n-Butylbenzene, 1,3,5-Trimethylbenzene

**Radiological:** Combined Radium (pCi/L), Alpha-Gross (pCi/L), Strontium-90 (pCi/L)

<sup>1</sup>Some analyses not required or performed in 2002, most recent results shown.

**Greater Cincinnati Water Works**  
**Statement of Net Assets**  
**December 31, (000's omitted)**

**Assets:**

	<b>2002</b>	<b>2001</b>
<b>Current Assets</b>		
Cash and Cash Equivalents	\$ 299	\$ 981
Equity in City Treasury Cash	22,816	20,347
Receivables		
Accounts, Net	13,936	12,692
Accrued Interest	670	1,537
Due from Other Funds	855	1,043
Due from Other Governments	9,982	10,403
Prepaid Items	29	25
Inventory	3,942	4,767
Advances to Other Funds	337	375
Restricted Assets		
Cash and Equivalents	8,554	7,784
Equity in City Treasury Cash	4,630	21,943
<b>Noncurrent Assets</b>		
Equity in City Treasury Cash	24,159	32,161
Restricted Equity in		
City Treasury Cash	4,903	34,685
Land	2,610	2,610
Buildings	146,630	141,512
(Accumulated Depreciation)	(48,325)	(44,790)
Improvements	310,817	249,566
(Accumulated Depreciation)	(47,125)	(44,322)
Machinery and Equipment	152,967	127,732
(Accumulated Depreciation)	(74,038)	(66,275)
Leased Assets	190	190
(Accumulated Amortization)	(186)	(139)
Construction in Progress	103,849	113,297
<b>Total Assets</b>	<b>642,501</b>	<b>628,124</b>

**Liabilities:**

	<b>2002</b>	<b>2001</b>
<b>Current Liabilities</b>		
Accounts Payable	\$ 2,319	\$ 1,274
Due to Other Funds	395	358
Due to Other Governmental Agencies	2,138	1,467
Accrued Payroll	1,101	1,162
Accrued Interest	303	383
Obligation Under Capital Lease	4	51
Deferred Revenue	2,341	2,469
Compensated Absences Payable	2,437	1,769
Unpaid Claims Payable	120	68
General Obligation Bonds Payable	14,470	14,370
Revenue Bonds Payable	2,935	2,800
Payable from Restricted Assets		
Construction Contracts	6,079	4,461
Deposits Payable	1,022	535
<b>Noncurrent Liabilities</b>		
Obligation Under Capital Lease	0	4
Compensated Absences Payable	3,030	3,118
Arbitrage Liability	1,210	0
Revenue Bonds Payable	86,950	89,885
General Obligations Payable	53,340	67,810
<b>Total Liabilities</b>	<b>180,194</b>	<b>191,984</b>
<b>Net Assets:</b>		
Invested In Capital Assets,		
Net of Related Debt	397,249	304,461
Reserved for Restricted Assets	3,427	59,416
Unrestricted	61,631	72,263
<b>Total Net Assets</b>	<b>\$ 462,307</b>	<b>\$ 436,140</b>





Greater Cincinnati Water Works  
**Statement of Revenues, Expenses  
and Changes in Fund Net Assets  
For the Year Ended December 31,  
(000's omitted)**

	<b>2002</b>	<b>2001</b>
<b>Operating Revenues:</b>		
Metered Water Revenue	\$ 80,917	\$ 73,609
Service Charges	1,025	943
Nonmetered Water Revenue	225	145
Servicing Customers Installations	3	4
Miscellaneous Revenue	1,932	1,916
Operating Interest Revenue	400	284
Rental Income	107	99
Departments of Sewers and Stormwater Management for Billing and Collection Services	4,392	4,364
Mason Fees	1,106	0
Purchasing Agent Sales Revenue	17	3
<b>Total Operating Revenue</b>	<b>90,124</b>	<b>81,367</b>
<b>Operating Expenses:</b>		
Personal Services	31,292	29,237
Contractual Services	8,082	7,491
Maintenance and Repair	2,575	2,836
Materials and Supplies	5,992	5,917
Utilities	7,918	6,802
Insurance	230	181
Taxes	0	16
Rent	394	306
Other	470	190
Depreciation and Amortization Expense	15,630	12,152
Amortization Mason Agreement	48	0
<b>Total Operating Expense</b>	<b>72,631</b>	<b>65,128</b>
<b>Operating Income</b>	<b>17,493</b>	<b>16,239</b>
<b>Non-Operating Revenues (Expenses):</b>		
Loss on Disposal of Fixed Assets	(24)	(516)
Interest Revenue	2,910	8,521
Interest Expense	(4,749)	(7,416)
<b>Total Non-Operating Revenues (Expenses)</b>	<b>(1,863)</b>	<b>589</b>
Income Before Contributions and Transfers	15,630	16,828
Operating Transfers In	0	236
Capital Contributions	10,537	8,475
Change In Net Assets	26,167	25,539
Net Assets at January 1,	436,140	410,601
<b>Net Assets at December 31,</b>	<b>\$462,307</b>	<b>\$436,140</b>

**Greater Cincinnati Water Works**  
**Statement of Cash Flows**  
**For the Year Ended December 31, (000's omitted)**

	<b>2002</b>	<b>2001</b>
<b>Cash Flow from Operating Activities:</b>		
Receipts from Customers	\$ 89,441	\$ 82,962
Payments to Suppliers	(22,596)	(25,213)
Payments to Employees	(30,773)	(30,162)
Payments for Property Taxes	0	(16)
<b>Net Cash Provided (Used) by Operating Activities</b>	<b>36,072</b>	<b>27,571</b>
<b>Cash Flow from Non Capital Financing Activities:</b>		
Transfer In from Other Fund	0	236
Repayments of Advances Made to Other Funds	38	36
<b>Net Cash Used by Non Capital Financing Activities</b>	<b>38</b>	<b>272</b>
<b>Cash Flow from Capital and Related Financing Activities:</b>		
Capital Contributed by Other Sources	(2,341)	140
Proceeds from the Sale of Fixed Assets	79	169
Additions to Construction in Progress	(68,355)	(22,419)
Acquisition of Property, Plant and Equipment	(890)	(29,144)
Interest Paid on Bonds	(4,957)	(7,489)
Proceeds from Sale of Bonds	0	95,154
Principal Paid on Bonds	(17,170)	(14,320)
Principal Paid on Long Term Capital Leases	(4)	(50)
<b>Net Cash Used by Capital and Related Financing Activities</b>	<b>(93,638)</b>	<b>22,041</b>
<b>Cash Flow from Investing Activities:</b>		
Proceeds from Sale of Investments	0	0
Interest and Dividends on Investments	4,988	7,997
<b>Net Cash Provided by Investing Activities</b>	<b>4,988</b>	<b>7,997</b>
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	<b>(52,540)</b>	<b>57,881</b>
Cash and Cash Equivalents at Beginning of Year	117,901	60,020
<b>Cash and Cash Equivalents at End of Year</b>	<b>\$ 65,361</b>	<b>\$ 117,901</b>
<b>Reconciliation of Operating Income to Net Cash Provided (Used) by Operating Activities</b>		
Operating Income	\$ 17,493	\$ 16,239
Depreciation and Amortization	15,678	12,152
Changes in Assets and Liabilities:		
(Increase) Decrease in:		
Receivables	(1,292)	1,127
Due from Other Funds	188	(833)
Due from Other Governments	421	1,299
Prepaid Assets	(4)	46
Inventory	825	59
Increase (Decrease) in:		
Accounts Payable	1,046	(1,195)
Accrued Payroll	(61)	(758)
Deposits Payable	486	(251)
Due to Other Funds	37	(439)
Current Obligation Capital Lease	(47)	(11)
Due to Other Governments	670	264
Liability for Compensated Absences	580	(123)
Estimated Liability for Unpaid Claims	52	(5)
<b>Net Cash Provided by Investing Activities</b>	<b>\$ 36,072</b>	<b>\$ 27,571</b>
<b>Schedule of Noncash Investing, Capital and Financing Activities</b>		
Acquisition of Property, Plant and Equipment from Contributed Capital	\$ 12,878	\$ 8,335
<b>Total Noncash Investing, Capital and Financing Activities</b>	<b>\$ 12,878</b>	<b>\$ 8,335</b>

The accompanying notes are an integral part of this financial statement.

# Notes to Financial Statements - December 31, 2002

## Summary of Significant Accounting Policies

The Greater Cincinnati Water Works is a municipally owned and operated utility. The financial statements of the Greater Cincinnati Water Works are included in the Comprehensive Annual Financial Report of the City of Cincinnati. An annual audit of the financial statements of the City of Cincinnati is performed by or at the direction of the Auditor of State.

**Deposits and Investments with Financial Institutions** - Cash balances of the Greater Cincinnati Water Works are included in a pool of City Treasury Cash. The City Treasurer determines the amounts to be kept on hand to meet current obligations and amounts and timing of investments. All deposits and investments by the City are insured by the Federal Deposit Insurance Corporation or some other instrumentality of the Federal government, or are covered by securities held by the City or its agent in the City's name.

**Accrued Interest Receivable** - Interest receivable on Greater Cincinnati Water Works funds has been accrued and recognized as revenue for 2002 and 2001; the amounts are \$670,000 and \$1,537,000 respectively.

**Inventories of Materials and Supplies** - Inventories are valued at cost which are determined on the moving average basis.

**Restricted Assets and Related Liabilities and Reserves** - Assets, the uses of which are restricted by City Council ordinance for improvements, extensions and construction of the system are segregated on the balance sheet.

**Fixed Assets and Depreciation** - Fixed Assets are stated at cost and are depreciated by the straight-line method over estimated useful lives up to 100 years. Typical lives are as follows:

Buildings	67 Years
Transmission and Distribution Mains	100 Years
Machinery and Equipment	3 to 30 Years

**Capitalization of Interest** - Interest is capitalized by the Greater Cincinnati Water Works when it is determined to be material. The Water Works capitalizes interest in accordance with Statement of Financial Accounting Standard No. 62, Capitalization of Interest Costs in Situations Involving Certain Tax Exempt Borrowing and Certain Gifts and Grants. The statement requires that the interest cost capitalized during construction to be reduced by interest income earned on investments of the bond proceeds from the date of the borrowing until the assets constructed from the bond proceeds are ready for their intended use. The capitalized interest for December 31, 2002 was \$4,091,000 and for the year ending December 31, 2001 was \$586,000.

**Leased Assets** - One contract which provides for the lease purchase of copying machines was entered into during 1999.

The term of this contract expires in 2003, required principal and interest payments are as follows:

	Principal	Interest
2003	4,500	200

**Compensated Absences** - NCGA Statement 4 requires state and local governments to recognize the liabilities associated with employees' compensated absences. Therefore, the following obligations have been included in the Greater Cincinnati Water Works Comparative Statement of Long-Term Liabilities.

**Vacation** - Vacation benefits are considered to be vested benefits of the employees. The obligation at December 31, 2002 for vacation benefits of Greater Cincinnati Water Works employees is approximately \$2,547,000.

**Sick Leave** - Sick leave benefits are included in the estimated liability for the employees, based upon the portion of accumulated sick leave liability that is estimated to eventually be paid as a retirement or death benefit. At December 31, 2002 this liability is approximately \$2,846,000 for Greater Cincinnati Water Works employees.

**Compensatory Time** - Employees are permitted to accumulate compensatory time for work in excess of their normal forty-hour week. The amount of the obligation at December 31, 2002 is \$73,000.

**The following is a Summary of the Changes in the Estimated Liability for Compensated Absences of the Greater Cincinnati Water Works for the year ended December 31, 2002 (000's omitted):**

	Accrued Vacation	Accrued Sick Pay	Compensatory Time	Total
Estimated Liability for Compensated Absences January 1, 2002	\$2,439	\$2,384	\$65	\$4,888
Earned During 2002	1,745	1,196	73	3,014
Used/Forfeited During 2002	(1,637)	(734)	(65)	(2,436)
Estimated Liability for Compensated Absences December 31, 2002	\$2,547	\$2,846	\$73	\$5,466



**Pension Plans** - Full time employees of the Greater Cincinnati Water Works participate in one of two pension plans - either the Retirement System of the City of Cincinnati, administered by the City of Cincinnati, or the Public Employee's Retirement System (PERS), administered by the State of Ohio. The Greater Cincinnati Water Works contributions to the City administered retirement system during 2002 and 2001 were \$1,737,000 and \$1,631,000 respectively. Contributions to PERS during 2002 and 2001 were \$197,000 and \$118,000 respectively. The actuary annually determines employer contributions to the City system for the current and following years. The actuarially computed value of vested and non-vested benefits on the plan's net assets available for plan benefits for each of the respective plans is not determined separately for the Water Works.

**Contributed Capital** - Contributions consist of facilities, or cash payments for construction of facilities, received from property owners and governmental agencies who receive benefit from such facilities. In accordance with GASB's Codification, Section G60.116, which allows (but does not require) enterprise funds to close out depreciation expense on contributed assets to "contributed capital" rather than to "retained earnings" the Greater Cincinnati Water Works has adjusted its Contributed Capital and Retained Earnings to reflect this option.

**Revenue** - Unbilled revenues on metered accounts are accrued at year-end. Rates are authorized by City Council based on operating costs and anticipated capital expenditures. A contract between the City and the Hamilton County Board of Commissioners specifies a differential between the rates for City and for Hamilton County consumers, declining from 55% to 25% over the life of the contract ending December 31, 2017. Rates applicable to residents of other counties and some municipalities in Hamilton County are negotiated separately.

**Long Term Debt** - This consists of General Obligation Bonds which are issued for the purpose of various Greater Cincinnati Water Works improvements. The bonds are self-supporting and serviced by water user charges; however, should the user charges be insufficient to cover debt service, the principal and interest are to be paid from the proceeds of the levy of ad valorem taxes on all property in the City without limitation as to the rate or the amount. The Greater Cincinnati Water Works for the first time issued Revenue Bonds during 2001. The Greater Cincinnati Water Works expects to finance future capital requirements utilizing revenue bonds. The annual requirements to amortize all debt outstanding as of December 31, 2002 is as follows (000's omitted):

Year Ending December 31,		Total	Principal	Interest
Current	2003	\$ 25,231	\$ 17,405	\$ 7,826
Long Term	2004	21,834	14,905	6,929
	2005	19,549	13,355	6,194
	2006	17,359	11,805	5,554
	2007	15,090	10,095	4,995
	2008-2014	124,598	90,130	34,468
Total Long Term		\$198,430	\$140,290	\$58,140
		<u>\$223,661</u>	<u>\$157,695</u>	<u>\$65,966</u>

As of December 31, 2002 and 2001 Long Term Debt consisted of the following (000's omitted):

General Obligation Bonds	Original Principal Issue	Interest Rate (Percent)	Maturity Date	2002 Principal Outstanding	2001 Principal Outstanding
G-1105	\$ 2,500	5.375	2003	\$ 100	\$ 200
G-1137	8,000	7.0	2003	540	1,080
G-1138	20,000	7.0	2003	1,400	2,800
G-1140	15,000	6.75	2004	2,000	3,000
G-1146	12,000	6.7	2005	2,400	3,200
G-1147	10,000	6.75	2005	2,800	3,500
G-1162	5,000	5.375	2007	1,750	2,100
G-1170	6,000	4.5	2003	600	1,200
G-1176	8,000	4.6	2004	1,600	2,400
G-1185	9,000	5.15	2005	2,700	3,600
G-1192	11,800	4.1	2006	4,720	5,900
G-1197	15,600	4.75	2007	7,800	9,300
G-1203	25,600	4.375	2008	15,600	18,100
G-1210	29,800	4.2	2014	23,800	25,800
S-2001	92,685	4.912	2021	89,885	92,685
	<u>\$270,985</u>			<u>\$157,695</u>	<u>\$174,865</u>
		Less Current Maturity		<u>(17,405)</u>	<u>(17,170)</u>
		<b>Long Term Debt</b>		<u><u>\$140,290</u></u>	<u><u>\$157,695</u></u>

## Other City Agency Transactions

**Metropolitan Sewer District and Storm Water Management** - The Greater Cincinnati Water Works provides billing and collection services of customers' accounts for the Metropolitan Sewer District and the Storm Water Management Utility. The charges for these services are recognized as revenue and included in the Statement of Revenue, Expense and Changes in Retained Earnings. During 2002 and 2001 the fees for these services were, \$4,392,000 and \$4,364,000 respectively.

**Free Water** - The Greater Cincinnati Water Works provides free water service to the City of Cincinnati for municipal purposes. During 2002 and 2001 the values of these services were \$942,000 and \$1,601,000 respectively.

**Other City Agency Transactions** - The City provides various services to the Greater Cincinnati Water Works for which a fee is charged. These services include personnel, purchasing, legal service, etc. During 2002 and 2001 these fees were \$2,159,000 and \$2,129,000 respectively. Also, the City's Municipal Garage provides gasoline and maintenance service for Water Works vehicles. During 2002 and 2001 these fees were \$687,000 and \$782,000 respectively. In addition, the City's Regional Computer Center provides a variety of services for the Greater Cincinnati Water Works. The primary service provided to the Water Works by the Regional Computer Center is billing and collection system support. During 2002 and 2001 the fees for these services were \$1,343,000 and \$1,385,000 respectively.

## Other Issues

During 1993, the Greater Cincinnati Water Works entered into an agreement with the Hamilton County Board of Commissioners to extend water service to previously unserved, unincorporated areas of western Hamilton County. This agreement specifies that a portion of those water collections received from current customers in unincorporated areas of Hamilton County be segregated for the purpose of financing construction of the utility necessary to serve the additional customers. This amount is reflected as Due to Other Governments in the financial statements.

Activity Fund	January 1, 2002	Additions	Deductions	December 31, 2002
<b>Assets:</b>				
Equity in City Treasury Cash	<u>\$546</u>	<u>\$1,974</u>	<u>\$1,683</u>	<u>\$837</u>
<b>Liabilities:</b>				
Accounts Payable	\$ 0	\$1,683	\$1,683	\$ 0
Fund Balance	<u>546</u>	<u>1,974</u>	<u>1,683</u>	<u>837</u>
Total Liabilities	<u>\$546</u>	<u>\$3,657</u>	<u>\$3,366</u>	<u>\$837</u>



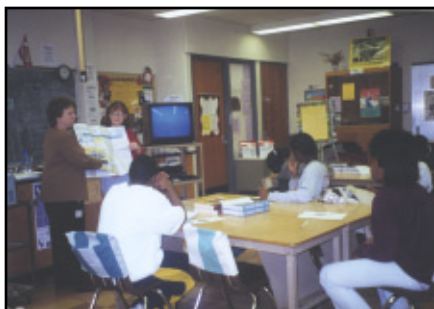


"I would like to express my gratitude to your Customer Service rep...She resolved the problem...in a timely and professional manner."

*Judy T., Customer*

"Thank you for your willingness to come to our science class [and for keeping] our water clean and safe."

*Aiken High School Science Class*



"My visit to GCWW...was a math and science lesson, also 50 minutes well spent! Thank you. Your patience and professionalism in demonstrating [the water metering process]...heightened my awareness...in determining plumbing problems in [my] building."

*Gwendolyn B., Customer*



"Thanks so much to the [GCWW] crew who worked late into the night...and early [the next day] to repair the water main break...in Green Township. They worked hard—in the cold and dark—to complete the job [which was] difficult...because our street is narrow...These men and women did a great job."

*Gini H., Customer*

"At [our children's church]...we talked about our water and where it comes from and how we take it for granted...We decided it would be nice for you to know that we truly appreciate what you do...[and] how thankful we are that you are there."

*Clough United Methodist Church*



"Thank you for always having a booth with the free cups of water at the various downtown events. It is really appreciated by many people."

*Barbara H., Customer*





## **Our Vision**

Greater Cincinnati Water Works will be  
the standard for excellence  
in the water utility industry.

## **Our Mission**

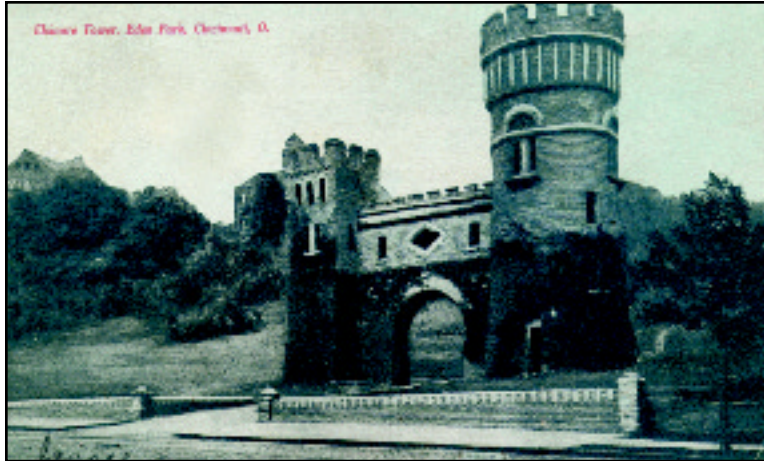
To provide our customers with a plentiful supply  
of the highest quality water and outstanding  
services in a financially responsible manner.

## **Our Values**

Above all, the Greater Cincinnati Water Works  
values our customers; they are the sole reason we  
exist. Anticipating and exceeding their expectations  
guides our strategic planning, drives our decision  
making process, and prioritizes our actions.

To that end, we recognize that successful  
customer relationships directly depend on our  
employees. The people who work here are the  
Greater Cincinnati Water Works, and we value their  
loyalty, contributions, accomplishments, and their  
dedication to our customers. Greater Cincinnati  
Water Works employees, in turn, commit themselves  
to the following values that will enable us to  
realize our vision - to be the standard of  
excellence in the water utility industry.

*Quality Drinking Water*  
*Involvement in the Community*  
*Innovation and Creativity*  
*Integrity and Professionalism*  
*The Environment*  
*Efficiency and Cost Effectiveness*



#### Elsinore Castle Comes to Light:

Greater Cincinnati Water Works in cooperation with the Mt. Adams Neighborhood Council and other City departments participated in a lighting project for the Elsinore Castle at the foot of Mt. Adams. Elsinore Castle, a Cincinnati landmark and GCWW facility, is located at 1700 Gilbert Avenue. It was built in 1883 to shelter large valves that were used to control the flow of water from the newly built Eden Park Reservoir. GCWW continues to maintain the structure for its landmark value, even though the valves were removed in 1967.

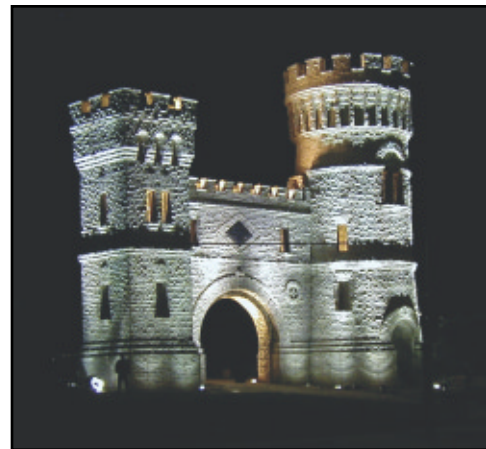


Photo by: Arthur Leesman, Kim Lighting  
Lighting consultant: James H. Gage, *Visions In Light*

## Greater Cincinnati Water Works

*A service of the City of Cincinnati*

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[www.cincinnati-oh.gov/gcww](http://www.cincinnati-oh.gov/gcww)